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For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300

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The Version Date and Number for this MSDS is : 08/18/2006 - #007

PRODUCT NAME: SODIUM BICARBONATE

MSDS NUMBER: MZS2954

DATE ISSUED: 7/11/2006

SUPERSEDES: 6/4/2004

ISSUED BY: 008614

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SODIUM BICARBONATE

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1. PRODUCT IDENTIFICATION

SYNONYMS: SODIUM HYDROGEN CARBONATE; SODIUM ACID CARBONATE; BAKING
SODA; BICARBONATE OF SODA
CAS NO: 144-55-8
MOLECULAR WEIGHT: 84.01
CHEMICAL FORMULA: NAHCO3

Distributed by:
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Redmond, WA 98052
425-889-3400

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2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT	CAS NO	PERCENT	HAZARDOUS
SODIUM BICARBONATE	144-55-8	99 - 100%	NO

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3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

AS PART OF GOOD INDUSTRIAL AND PERSONAL HYGIENE AND SAFETY PROCEDURE, AVOID
ALL UNNECESSARY EXPOSURE TO THE CHEMICAL SUBSTANCE AND ENSURE PROMPT
REMOVAL FROM SKIN, EYES AND CLOTHING.

POTENTIAL HEALTH EFFECTS

INHALATION:

HIGH CONCENTRATIONS OF DUST MAY CAUSE COUGHING AND SNEEZING.

INGESTION:

EXTREMELY LARGE ORAL DOSES MAY CAUSE GASTROINTESTINAL DISTURBANCES.

SKIN CONTACT:

NO ADVERSE EFFECTS EXPECTED.

EYE CONTACT:

CONTACT MAY CAUSE MILD IRRITATION, REDNESS, AND PAIN.

CHRONIC EXPOSURE:

NO INFORMATION FOUND.

AGGRAVATION OF PRE-EXISTING CONDITIONS:

NO INFORMATION FOUND.

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4. FIRST AID MEASURES

INHALATION:

REMOVE TO FRESH AIR. GET MEDICAL ATTENTION FOR ANY BREATHING DIFFICULTY.

INGESTION:

GIVE SEVERAL GLASSES OF WATER TO DRINK TO DILUTE. IF LARGE AMOUNTS WERE SWALLOWED, GET MEDICAL ADVICE.

SKIN CONTACT:

NOT EXPECTED TO REQUIRE FIRST AID MEASURES.

EYE CONTACT:

WASH THOROUGHLY WITH RUNNING WATER. GET MEDICAL ADVICE IF IRRITATION DEVELOPS.

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5. FIRE FIGHTING MEASURES

FIRE:

NOT CONSIDERED TO BE A FIRE HAZARD.

EXPLOSION:

NOT CONSIDERED TO BE AN EXPLOSION HAZARD.

FIRE EXTINGUISHING MEDIA:

USE ANY MEANS SUITABLE FOR EXTINGUISHING SURROUNDING FIRE.

SPECIAL INFORMATION:

USE PROTECTIVE CLOTHING AND BREATHING EQUIPMENT APPROPRIATE FOR THE SURROUNDING FIRE.

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6. ACCIDENTAL RELEASE MEASURES

VENTILATE AREA OF LEAK OR SPILL. WEAR APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT AS SPECIFIED IN SECTION 8. SPILLS: SWEEP UP AND CONTAINERIZE FOR RECLAMATION OR DISPOSAL. VACUUMING OR WET SWEEPING MAY BE USED TO AVOID DUST DISPERSAL. SMALL AMOUNTS OF RESIDUE MAY BE FLUSHED TO SEWER WITH PLENTY OF WATER.

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7. HANDLING AND STORAGE

KEEP IN A WELL CLOSED CONTAINER STORED UNDER COLD TO WARM CONDITIONS, 2 TO 40 °C (36 TO 104F). PROTECT AGAINST PHYSICAL DAMAGE. CONTAINERS OF THIS MATERIAL MAY BE HAZARDOUS WHEN EMPTY SINCE THEY RETAIN PRODUCT RESIDUES (DUST, SOLIDS); OBSERVE ALL WARNINGS AND PRECAUTIONS LISTED FOR THE PRODUCT.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

AIRBORNE EXPOSURE LIMITS:
NONE ESTABLISHED.

VENTILATION SYSTEM:
IN GENERAL, DILUTION VENTILATION IS A SATISFACTORY HEALTH HAZARD CONTROL FOR THIS SUBSTANCE. HOWEVER, IF CONDITIONS OF USE CREATE DISCOMFORT TO THE WORKER, A LOCAL EXHAUST SYSTEM SHOULD BE CONSIDERED.

PERSONAL RESPIRATORS (NIOSH APPROVED):
FOR CONDITIONS OF USE WHERE EXPOSURE TO DUST OR MIST IS APPARENT AND ENGINEERING CONTROLS ARE NOT FEASIBLE, A PARTICULATE RESPIRATOR (NIOSH TYPE N95 OR BETTER FILTERS) MAY BE WORN. IF OIL PARTICLES (E.G. LUBRICANTS, CUTTING FLUIDS, GLYCERINE, ETC.) ARE PRESENT, USE A NIOSH TYPE R OR P FILTER. FOR EMERGENCIES OR INSTANCES WHERE THE EXPOSURE LEVELS ARE NOT KNOWN, USE A FULL-FACE POSITIVE-PRESSURE, AIR-SUPPLIED RESPIRATOR.
WARNING: AIR-PURIFYING RESPIRATORS DO NOT PROTECT WORKERS IN OXYGEN-DEFICIENT ATMOSPHERES.

SKIN PROTECTION:
WEAR PROTECTIVE GLOVES AND CLEAN BODY-COVERING CLOTHING.

EYE PROTECTION:
USE CHEMICAL SAFETY GOGGLES. MAINTAIN EYE WASH FOUNTAIN AND QUICK-DRENCH FACILITIES IN WORK AREA.

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:
WHITE CRYSTALLINE POWDER.

BOILING POINT:
NOT APPLICABLE.

ODOR:
ODORLESS.

MELTING POINT:
60C (140F)

SOLUBILITY:
7.8G/100G WATER @ 18C (64F).

VAPOR DENSITY (AIR=1):
NO INFORMATION FOUND.

DENSITY:
2.2

VAPOR PRESSURE (MM HG):
NO INFORMATION FOUND.

PH:
8.3 (0.1 MOLAR @ 25C (77F))

EVAPORATION RATE (BUAC=1):
NO INFORMATION FOUND.

% VOLATILES BY VOLUME @ 21C (70F):
0

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10. STABILITY AND REACTIVITY

STABILITY:

STABLE UNDER ORDINARY CONDITIONS OF USE AND STORAGE.

HAZARDOUS DECOMPOSITION PRODUCTS:
GASEOUS CARBON DIOXIDE.

HAZARDOUS POLYMERIZATION:
WILL NOT OCCUR.

INCOMPATIBILITIES:
REACTS WITH ACIDS TO FORM CARBON DIOXIDE. DANGEROUS REACTION WITH
MONOAMMONIUM PHOSPHATE OR A SODIUM-POTASSIUM ALLOY.

CONDITIONS TO AVOID:
HEAT, MOISTURE, INCOMPATIBLES.

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11. TOXICOLOGICAL INFORMATION

INVESTIGATED AS A MUTAGEN, REPRODUCTIVE EFFECTOR. ORAL RAT LD50: 4220
MG/KG. IRRITATION DATA: HUMAN, SKIN, 30MG/3D-I MILD, RABBIT, EYE, 100 MG/30
S, MILD.

-----/CANCER LISTS/-----
-----NTP CARCINOGEN-----
INGREDIENT KNOWN ANTICIPATED IARC CATEGORY

SODIUM BICARBONATE (144-55-8) NO NO NONE

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12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:
NO INFORMATION FOUND.

ENVIRONMENTAL TOXICITY:
NO INFORMATION FOUND.

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13. DISPOSAL CONSIDERATIONS

WHATEVER CANNOT BE SAVED FOR RECOVERY OR RECYCLING SHOULD BE MANAGED IN AN
APPROPRIATE AND APPROVED WASTE DISPOSAL FACILITY. PROCESSING, USE OR
CONTAMINATION OF THIS PRODUCT MAY CHANGE THE WASTE MANAGEMENT OPTIONS.
STATE AND LOCAL DISPOSAL REGULATIONS MAY DIFFER FROM FEDERAL DISPOSAL
REGULATIONS.

DISPOSE OF CONTAINER AND UNUSED CONTENTS IN ACCORDANCE WITH FEDERAL, STATE
AND LOCAL REQUIREMENTS.

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14. TRANSPORT INFORMATION

NOT REGULATED.

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15. REGULATORY INFORMATION

-----/CHEMICAL INVENTORY STATUS - PART 1/-----
INGREDIENT TSCA EC JAPAN AUSTRALIA

SODIUM BICARBONATE (144-55-8) YES YES YES YES

-----/CHEMICAL INVENTORY STATUS - PART 2/-----

INGREDIENT	KOREA	--CANADA--		
		DSL	NDSL	PHIL.
SODIUM BICARBONATE (144-55-8)	YES	YES	NO	YES

-----/FEDERAL, STATE & INTERNATIONAL REGULATIONS - PART 1/-----

INGREDIENT	-SARA 302-		-SARA 313-	
	RQ	TPQ	LIST	CHEMICAL CATG
SODIUM BICARBONATE (144-55-8)	NO	NO	NO	NO

-----/FEDERAL, STATE & INTERNATIONAL REGULATIONS - PART 2/-----

INGREDIENT	CERCLA	-RCRA-	-TSCA-
		261.33	8 (D)
SODIUM BICARBONATE (144-55-8)	NO	NO	NO

CHEMICAL WEAPONS CONVENTION: NO TSCA 12(B): NO CDTA: NO
 SARA 311/312: ACUTE: NO CHRONIC: NO FIRE: NO PRESSURE: NO
 REACTIVITY: NO (PURE / SOLID)

AUSTRALIAN HAZCHEM CODE: NONE ALLOCATED.
 POISON SCHEDULE: NONE ALLOCATED.

WHMIS: THIS MSDS HAS BEEN PREPARED ACCORDING TO THE HAZARD CRITERIA OF
 THE CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS
 ALL OF THE INFORMATION REQUIRED BY THE CPR.

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16. OTHER INFORMATION

NFPA RATINGS:

HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0

For Additional Information:

Contact: MSDS Coordinator - Univar USA

During business hours, Pacific Time - (425) 889-3400

NOTICE

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END OF MSDS

Applied Specialties, Inc.
33555 Pin Oak Parkway
on Lake, Ohio 44012

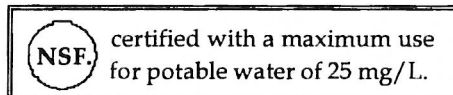
AS-222

04069222-3
March 16, 2004
Telephone (440) 933-9442
Emergency: (216) 973-6118

MATERIAL SAFETY DATA

SECTION 1 MATERIAL IDENTIFICATION

PRODUCT NAME OR AS-222
SYNONYMS LIQUID CATIONIC POLYMER



SECTION 2 INGREDIENTS AND HAZARDS

COMPONENT	CAS. NUMBER	%	TWA/CEILING	REFERENCE
2-Propen-1-aminium,N,N-dimethyl-N-2-propenyl-chloride, homopolymer	26062-79-3		NOT ESTABLISHED	

Emergency Overview: Clear To Light Amber Liquid; Mild Odor. **Warning!** Prolonged Contact May Cause Eye And Skin Irritation. Spills Are Very Slippery.

SECTION 3 ENVIRONMENTAL INFORMATION

OSHA STATUS This product is hazardous under the criteria of the Federal OSHA Hazard Communication Standard

TSCA STATUS All components are listed

RCRA REPORTABLE QUANTITY No components are listed

SARA TITLE III:

SECTION 302 (EXTREMELY HAZARDOUS SUBSTANCE) No components are listed

SECTION 311/312 (HAZARDOUS SUBSTANCES)

Classification Under Section 311/312 of SARA (40 CFR 370): Acute (Yes) Chronic (No) Fire (No) Reactive (No) Pressure (No)

SECTION 313 (TOXIC CHEMICALS) No components are listed

RCRA STATUS Not regulated as supplied

NTP, OSHA, ACGIH & IARC STATUS Not listed.

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM (HMIS)

HEALTH - 1 FIRE - 0 REACTIVITY - 0

- 0 MINIMAL
- 1 SLIGHT HAZARD
- 2 MODERATE HAZARD
- 3 SERIOUS HAZARD
- 4 SEVERE HAZARD

Chemical identity of some ingredients may be withheld as confidential as permitted by 29 CFR 1910.1200 and various State right to know laws.

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SECTION 4 HEALTH HAZARD AND PROTECTION DATA

TARGET ORGANS

Eyes Skin

ROUTES OF ENTRY INTO BODY

Inhalation Ingestion Skin Or Eye Contact

SIGNS AND SYMPTOMS OF EXPOSURE

Possible Eye Irritation Possible Skin Irritation Gastrointestinal Distress

PROTECTIVE EQUIPMENT REQUIRED:

Employees should be provided with and required to use impervious clothing, gloves, splash goggles or safety glasses as a minimum and other appropriate protective clothing to prevent skin contact. Employees shall be provided with and required to use splash-proof safety goggles where the material may contact the eyes in addition to face shield. Clothing wet with product should be placed in a closed container until provisions are made for it to be discarded or laundered. If the clothing is to be laundered the person performing the laundering should be informed of the hazardous properties of the material. Any clothing that becomes wet with the material should be removed immediately and not reworn until the clothing has been properly cleaned. **RESPIRATOR SELECTION** - Use only in well-ventilated areas. Use a NIOSH approved respirator where there is a likelihood of inhalation of the product mist. **ESCAPE & FIRE FIGHTING** - Self-contained breathing apparatus with a face-piece operated in pressure demand or other positive-pressure mode.

FIRST AID

SKIN CONTACT: Skin that becomes contaminated should be washed or showered with soap and water to remove any chemical from skin. Contaminated clothing should be removed and wash the skin with soap and water. Clothing should be washed before it is reused. Get medical attention.

EYE CONTACT: If material gets into the eyes, flush the eyes immediately with large amounts of water for at least 30 minutes, lifting the lower and upper lids occasionally. Get **MEDICAL** attention immediately. Contact lenses should not be worn when working with this substance or any other chemical.

INHALATION: If a person breathes in large amounts of product mist, move the person to fresh air. If breathing has stopped, perform artificial respiration. Keep the affected person warm and at rest. Get medical attention as soon as possible.

INGESTION: If a person swallows product, give large quantities of water. Do not induce vomiting. Get medical attention at once.

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SECTION 5 PHYSICAL DESCRIPTION

APPEARANCE AND ODOR	Clear to light amber liquid; mild odor.
BOILING POINT	Not determined
MELTING POINT	Not applicable
FLASH POINT	Not applicable
VAPOR PRESSURE	Not determined
SPECIFIC GRAVITY	1.08 +/- 0.02 g/ml
PRODUCT pH	6.00 +/- 1.00 standard pH units
SOLUBILITY IN WATER	Complete

SECTION 6 INCOMPATIBILITIES AND STORAGE

Hazardous Polymerization: Will Not Occur

Incompatible Materials: Oxidizing Agents. Incompatible with finely divided metals such as a Aluminum.

Thermal Decomposition Or Combustion May Produce Carbon Monoxide, Carbon Dioxide, Oxides Of Nitrogen And Hydrochloric Acid

Keep Containers Closed When Not In Use
Store Containers With Labels Visible

SECTION 7 REGULATIONS/OSHA

OSHA Standard 29 CFR 1910.1200	HAZARD COMMUNICATION
OSHA Standard 29 CFR 1910.1000	AIR CONTAMINANTS Table Z-1
OSHA Standard 29 CFR 1910.94	VENTILATION
OSHA Standard 29 CFR 1910.134	RESPIRATORY PROTECTION
OSHA Standard 29 CFR 1910.20	ACCESS TO EMPLOYEE EXPOSURE
OSHA Standard 29 CFR 1910.132	PERSONAL PROTECTIVE EQUIPMENT
OSHA Standard 29 CFR 1910.141	SANITATION
OSHA Standard 29 CFR 1910.151	MEDICAL SERVICES AND FIRST AID
OSHA Standard 29 CFR 1910.133	EYE AND FACE PROTECTION

SECTION 8 EMERGENCY HANDLING OF HAZARDOUS MATERIALS

IF MATERIAL IS ON FIRE OR INVOLVED IN FIRE:

Use alcohol foam or CO₂ or dry chemical extinguishers. Use water spray to keep containers cool. Spills are extremely slippery.

IF MATERIAL IS NOT ON FIRE OR NOT INVOLVED IN FIRE:

Keep material out of water sources and sewers.

PERSONAL DANGER SITUATION PROTECTION:

Keep upwind. Avoid breathing dust/vapors/fumes from material. Avoid bodily contact with material. Wear boots, protective gloves and gas-tight goggles. Wear full protective clothing (regular FIRE FIGHTERS' gear is inadequate).

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SECTION 9 SPILL, LEAK AND DISPOSAL PROCEDURES

Persons not wearing protective equipment and clothing should be restricted from spill areas until clean-up has been completed. If AS-222 is spilled, take the following steps:

- 1 - Ventilate the spill area.
- 2 - Collect spilled material using an approved liquid vacuum for recycling.
- 3 - Apply an absorbing compound to any residual material and shovel into a disposal drum.
- 4 - Discard any vacuumed material and the absorbent material in accordance to all FEDERAL, STATE, AND LOCAL REGULATIONS.

NOTE: DO NOT wash or pour AS-222 into any surface waters or streams or directly into sewers.

SECTION 10 SHIPPING AND TRANSPORTATION DATA

PROPER SHIPPING NAME	Resin Compound, Non - Regulated Liquid Polymer
HAZARD CLASS	Not Regulated
IDENTIFICATION NUMBER	NMFC 46030
LABEL REQUIRED	None

H. García-Muñoz

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